Climate Change Mainstreaming In 2014-2020 EU Cohesion Policy:
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Environmental Governance Programme

Workshop for regional and environmental authorities
Warsaw, Poland
12 September 2012
• IEEP is an independent research organisation concerned with policies affecting the environment in Europe and beyond
  • Research and consultancy on the development, implementation and evaluation of environmental and environment-related policies in Europe
  • Policy advise and intelligence
  • Capacity-building

• Interdisciplinary staff including lawyers and natural and social scientists

• Key research areas:
  • Governance (including the reform and greening of EU budget and related funding instruments)
  • Agriculture and land management
  • Biodiversity
  • Climate change and energy
  • Resources use, waste and chemicals
  • Water, marine and fisheries
Outline of presentation

Session 1: [9:00-11:00]
1) Climate change – trends, impacts and EU policy
2) EU budget and Cohesion Policy
3) Climate change mainstreaming – overview of EC proposals
4) Terminology explained
5) Implications for PA, OPs and investment projects

Session 2: [11:30-13:00]
1) Examples of options for dedicated investment in climate change mitigation and adaptation
2) Examples of tools and instruments for integrating climate change horizontally

Session 3: [14:00-16:00]
1) Exercise
2) Conclusions and evaluation
Session 1
Climate change in the EU
EU climate policy and strategic objectives

- **EU Climate and energy package**
  - 20-20-20 targets

- **EU White paper on climate change adaptation**

- **Europe 2020 Strategy**
  - Goals: smart, sustainable and inclusive growth
  - Headline targets: *inter alia* 20-20-20 climate and energy targets

- **Resource Efficiency** Flagship Initiative
  - Transition to low-carbon and resource efficient economy
  - Cohesion Policy and sustainable growth

- **2050 Roadmap** to a low carbon economy
  - Reducing domestic emissions by 80-95%
  - Additional €270 billion investments needed or 1.5% of its GDP annually
Climate change trends - impacts

**Arctic**
- Decrease in Arctic sea ice coverage
- Greenland ice sheet loss
- Higher risk of biodiversity loss

**North-western Europe**
- Increase in winter precipitation
- Increase in river flow
- Northward movement of freshwater species
- Higher risk of coastal flooding

**Coastal zones and regional seas**
- Sea-level rise
- Higher sea surface temperatures
- Northward movement of species
- Increase in phytoplankton biomass
- Higher risk for fish stocks

**Northern Europe (boreal region)**
- Less snow, lake and river ice cover
- Northward movement of species
- More energy by hydropower
- Lower energy consumption for heating
- Higher risk of damages by winter storms
- Increased river flows
- Higher forest growth
- Higher crop yields
- More (summer) tourism

**Mountain areas**
- High temperature increase
- Less glacier mass
- Less mountain permafrost
- Higher risk of rock falls
- Upwards shift of plants and animals
- Less ski tourism in winter
- Higher soil erosion risk
- High risk of species extinction

**Central and eastern Europe**
- More temperature extremes
- Less summer precipitation
- More river floods in winter
- Higher water temperature
- Higher crop yield variability
- Increased forest fire danger
- Lower forest stability

**Mediterranean region**
- Decrease in annual precipitation
- Decrease in annual river flow
- Increasing water demand for agriculture
- Lower crop yields
- More forest fires
- Less energy by hydropower
- More deaths by heat waves
- More vector-borne diseases
- Less summer tourism
- Higher risk of biodiversity loss
- Higher risk for desertification

Source: EEA
Climate change trends - emissions

EU is making good progress towards achieving its emission reduction targets by 2020

Challenges still remain in the power generation, transport and buildings sectors

Challenges also remain for long-term reductions to stay below a 2C increase in global temperatures

Source: EEA
Mitigation and adaptation are interlinked
Main concepts

**Sensitivity**: The degree to which a system, receptor or exposure unit would be affected, either adversely or beneficially, by a particular change in climate or climate-related variable.

**Adaptive capacity**: The ability of a system to adjust to climate change (including climate variability and extremes), to moderate potential damages, take advantage of opportunities, or cope with the consequences.

**Vulnerability** defines the extent to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. It depends not only on a system’s sensitivity but also on its adaptive capacity.
What does this mean for Poland?

- Projected increase in **temperature** and **precipitation**, as well as **extreme weather** events such as floods
- Impacts are expected to affect key sectors such as **energy**, **buildings and transport** infrastructures as well as **health** and **water**

### Poland

- Poland is on track with meeting its international and EU **targets** for GHG emission reduction by **2020**
- However, open questions remain for **2030** and **2050**
- Energy systems dependent on **fossil fuels**; the role of **RES** is negligible

- High **energy intensity** of the entire economy (electricity production is the most carbon intensive in EU27)
- Emissions from **transport** have doubled between 1990 and 2009

Source: EC and OECD
EU Budget and Cohesion Policy
EC proposes that at least 20% of the MFF is allocated to climate related activities, which would mean approximately €200 billion for 2014-2020.
EU Cohesion Policy – 2014-2020 (1)

EC proposals on 2014-2020 EU Cohesion Policy:

• Overall budget - €336 billion (33% of MFF)

• Retains the main funds: ERDF, Cohesion Fund and ESF

• Two new objectives:
  1) Investment for growth and jobs (96% of the total Cohesion Policy)
  2) European territorial cooperation

• Improving strategic orientation and alignment with Europe 2020

• Enforcing thematic concentration

• Reinforcing integrated programming and territorial cohesion

• Improving performance and result orientation

• Simplifying delivery
EU Cohesion Policy – 2014-2020 (2)

3 categories of regions

- Less developed regions
- Transition regions
- More developed regions

GDP/capita*  < 75% of EU average  75-90%  > 90%

*index EU27=100

Regional GDP figures: 2006-07-08
GNI figures: 2007-08-09
© EuroGeographics Association for the administrative boundaries
Questions for clarification
Climate mainstreaming in EU Cohesion Policy
What role of Cohesion Policy for climate change?

Objective 1: Cohesion Policy seeks to address economic, social and territorial disparities

- Climate change impacts are expected to be territorially differentiated
- Expected to exacerbate further economic disparities due to losses in key economic sectors
- Climate change investments as economic drivers

Objective 2: Solidarity with Member States to catch up with EU standards

- Help Member States meet EU’s 20/20/20 climate and energy targets
- Help Member States adapt to climate change
Mainstreaming of climate change mitigation / adaptation focuses on the integration of climate concerns and responses into relevant policies, plans and programmes at different levels of governance.

Include 2 elements:

1) Scaling up dedicated investment for adaptation and mitigation

2) Horizontal integration of climate change
What is climate proofing?

In contrast to mainstreaming, climate proofing refers to the process of cross-checking that all elements of a programme and its implementation, including specific measures and projects, address climate change issues.

This involves ensuring that:

1) Funding is **resilient** to future climate impacts
2) The **carbon intensity** of funding is reduced to the extent possible
Overview of Commission proposals
Mainstreaming climate change in Cohesion Policy (1)

• **Reinforced strategic orientation** - Common Strategic Framework

• **Thematic concentration** - Menu of 11 thematic objectives

  1) Strengthening research, technological development and innovation
  2) Enhancing access, the use and quality of ICT
  3) Enhancing competitiveness of SMEs
  4) Supporting the shift towards low-carbon economy in all sectors
  5) Promoting climate change adaptation, risk prevention and management
  6) Protecting the environment, and promoting resource efficiency
  7) Promoting sustainable transport and removing bottlenecks in key infrastructures
  8) Promoting employment and labour mobility
  9) Promoting social inclusions and combating poverty
  10) Investing in education, skills and lifelong learning
  11) Enhancing institutional capacity and efficient public administration
Mainstreaming climate change in Cohesion Policy (1)

- **Earmarking**
  - relative share of allocations dedicated to specific measure
    - 20% of ERDF allocations to developed and transition regions -> EE&RES
    - 6% of ERDF allocations to less developed regions -> EE&RES
    - 5% of ERDF allocations -> sustainable urban development

- **Performance framework**
  - Priority, targets (for 2022) and milestones (for 2016 and 2018)
  - 2017 and 2019 performance reviews
  - Performance incentives (5% reserve and/or suspend)

- **Reporting requirements**
  - Include climate change in annual implementation reports
Mainstreaming climate change in Cohesion Policy (3)

- **Major projects selection**
  - Take into account mitigation, adaptation and resilience

- **Community-led development**
  - Opportunities for bottom up initiatives and approach to integrated planning taking climate change into account

- **Financial engineering and advisory services**
  - Financial instruments
  - JASPERS
Questions for clarification?
Implications for the programming process
PA - sets out the Member State's strategy, priorities and arrangements for using the CSF Funds in a way to pursue the Union strategy for smart, sustainable and inclusive growth

Climate change mainstreaming:

- Assess investment needs and risks to / vulnerability of regions/sectors
- Establish an integrated development strategy, including climate change issues
- Set out strategic priorities for climate change and implementation principles
- Engage environmental/climate change authorities and NGOs
Climate change in Operational Programmes

OP is the basic planning document for spending Cohesion Policy funds

Climate change mainstreaming:

- Establish a strategy for achieving EU objectives (including climate)
- Set out objectives, priority axes, investment priorities and corresponding funding allocations for climate
- Set out targets, milestones and indicators (performance framework)
- Include climate considerations in the ex-ante assessment and SEA
- Establish horizontal and implementation principles
Launching programs

 Communicating the programme, Set-up of Monitoring Committee, Procurement procedures (tenders, calls); green public procurement

Project preparation

 Assistance to applicants, Project requirements, EIA and Cost-Benefit Analysis (CBA)

Project evaluation and selection

 Eligibility requirements, Appraisal criteria, Appraisal mechanism

Project implementation

 Technical support to beneficiaries (sustainability manager), On-going monitoring

Climate change in implementation phase
Explicit requirements on monitoring, reporting and evaluating climate change expenditure, actions and outcomes

Climate change integration:
- Tracking climate change expenditure
- Indicators and milestones for climate change progress in annual implementation reports / thematic evaluations
- Discuss climate change data and progress in Monitoring Committees
- Use rewards mechanisms to stimulate progress and impose penalties in the case of lack of progress
Integration at every stage of the policy cycle

**Strategic objective and priorities for CC**
- Main principles

**Partnership Contracts**
- Objectives, targets, milestones, result indicators
- Priority interventions
- Allocating sufficient funds
- Ex-ante and SEA
- Inter-sectoral WG

**Operational Programme**
- Policy cycle
- Call for proposals
- Project selection criteria
- EIA and CBA
- Green public procurement
- Sustainability managers

**Evaluation**
- Mid-term evaluations
- Independent ex-post evaluations
- ‘Carrot and stick’ tools

**Monitoring and reporting**
- Climate ‘tracking’
- 2017 and 2019 annual implementation reporting
- Inter-institutional monitoring committees

**Project development**
### Political uncertainties

<table>
<thead>
<tr>
<th>General Affairs Council</th>
<th>REGI committee, EP</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Regular meetings in 2012</td>
<td>• Position voted in July</td>
</tr>
<tr>
<td>• 2 agreements on partial general approach so far</td>
<td>• Higher earmarking for low carbon measures (22-12/15%)</td>
</tr>
<tr>
<td>• Higher earmarking for low carbon measures (20-10/12%)</td>
<td>• Wider scope of activities to be counted</td>
</tr>
<tr>
<td>• Wider scope of activities to be counted</td>
<td>• Support for stringent rules on performance</td>
</tr>
<tr>
<td>• Weaker performance provisions</td>
<td>• Climate assessment required</td>
</tr>
</tbody>
</table>
Political timeline

August
- Informal GAC meeting on EU MFF

September
- GAC discusses EU MFF, based on revised negotiating box
- Trialogue between Council, EP and Commission begins on Cohesion Policy
- Cypriot Presidency puts forward draft figures on the size of the MFF and Headings

Negotiating phase

October
- GAC discusses EU MFF, including draft figures

November
- Extraordinary summit of European Council discusses EU MFF
- GAC concludes discussions on the EU MFF

Concluding phase

December
- European Council is expected to reach an agreement on EU MFF

Source: IEEP
Implementation challenges

• The success of mainstreaming strategy will depend on its implementation on the ground

• Issues of administrative capacity, knowledge base and awareness are severe in some MS/regions particularly in CEE

• Climate mainstreaming is often perceived to entail higher administrative costs, which is not necessarily true
Concluding remarks

- Generally, difficult political context of austerity measures and debt crisis
- Member States need to be smart about their expenditure planning
- Turning ‘costs’ to ‘investments’ – tapping potential / exploiting win-wins
- Sometimes conflicting EU objectives (e.g. TEN-T / E and climate)
- Improve alignment and coordination with other national strategic frameworks and EU funding instruments (e.g. ESF, Horizon 2020, LIFE, etc.)
- Use EU funds to leverage additional private financing through innovative financial instruments – JESSICA + new opportunities post-2013
- Balance measures with the need for simplification
Questions for clarification?
Session 2
What possible investment options for mitigation and adaptation?
How to make mainstreaming deliver in practice?

1) Scaling up dedicated investment
   - Investment options for **mitigation** and **adaptation**

2) Instruments for horizontal integration
   - Sustainability manager
   - Climate change in SEA
   - NECATER
   - Climate change in project selection
   - Climate change indicators
   - Climate change tracking

Concluding remarks
Examples of climate change mitigation options (1)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Mitigation options examples</th>
</tr>
</thead>
</table>
| Infrastructure       | Renewable energy generation – solar, wind, biomass, geothermal, etc.  
Smart grids  
Railway development  
Clean urban transport systems  
Integrated low carbon urban zones  
Charging points for electric vehicles  
High efficient co-generation plants and district heating from RES |
| R&D, innovation      | Low carbon technologies, especially related to the EU SET Plan  
Innovative low carbon products, services and industrial processes  
Innovative technologies for low-carbon transport  
Financial products and services for low carbon projects |
## Examples of climate change adaptation options (2)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Mitigation option example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource management</td>
<td>Energy efficient and renewable heating and cooling systems in buildings</td>
</tr>
<tr>
<td></td>
<td>Deep renovations</td>
</tr>
<tr>
<td></td>
<td>Zero-emission and passive housing</td>
</tr>
<tr>
<td>Governance</td>
<td>Strategies and action plans for low carbon development at different governance levels</td>
</tr>
<tr>
<td></td>
<td>Development of assessment tools (carbon footprint, carbon neutrality software, etc.)</td>
</tr>
<tr>
<td></td>
<td>Development of databases and indicators systems for climate change mitigation</td>
</tr>
</tbody>
</table>
## Examples of climate change adaptation options: Buildings

<table>
<thead>
<tr>
<th>Climate change Impact</th>
<th>Adaptation option example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher average summer temperatures and increased incidence of heat waves</td>
<td><strong>Energy efficient adaptation of homes against heat</strong></td>
<td>Energy efficient cooling systems like passive cooling, based on renewable energies</td>
</tr>
<tr>
<td>Patterns of precipitation volatile and uncertain</td>
<td><strong>Protection of buildings to storms and extreme precipitation</strong></td>
<td>Impact resistant building construction and drainage systems</td>
</tr>
<tr>
<td>Drought due to changing precipitation patterns</td>
<td><strong>More water-efficient building constructions</strong></td>
<td>Harvesting rainwater and water-efficient design of plumbing</td>
</tr>
</tbody>
</table>
### Examples of climate change adaptation options: Energy

<table>
<thead>
<tr>
<th>Climate change Impact</th>
<th>Adaptation option example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotter summers and extended periods of heat days</td>
<td><strong>Cooling of thermal power plants</strong></td>
<td>Energy efficient cooling systems, like passive cooling, based on renewable energies</td>
</tr>
<tr>
<td>Extreme storms</td>
<td><strong>Increasing robustness of transmission grids</strong></td>
<td>Strengthen pylons and lines</td>
</tr>
<tr>
<td>Hotter summers and extended periods of heat days</td>
<td><strong>Higher energy efficiency of ventilation systems</strong></td>
<td>Harvesting rainwater and water-efficient design of plumbing</td>
</tr>
</tbody>
</table>
### Examples of climate change adaptation options: Health

<table>
<thead>
<tr>
<th>Climate change Impact</th>
<th>Adaptation option example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher average summer temperatures and increased incidence of heat waves</td>
<td>Energy efficient cooling of hospitals</td>
<td>Energy efficient cooling systems, like passive cooling, based on renewable energies</td>
</tr>
<tr>
<td>Higher average summer temperatures and increased incidence of heat waves</td>
<td>Heat warning systems</td>
<td>Weather forecasts to predict heat situations</td>
</tr>
<tr>
<td>Hotter summers and extended periods of heat days</td>
<td>Additional care and support of vulnerable citizens through health infrastructure (workers, buildings)</td>
<td>Cool rooms in public buildings</td>
</tr>
</tbody>
</table>
### Examples of climate change adaptation options: Transport

<table>
<thead>
<tr>
<th>Climate change Impact</th>
<th>Adaptation option example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damages from flash floods and extreme precipitation</td>
<td>Retrofitting existing road infrastructure concerning increased precipitation</td>
<td>Upgrade and maintenance of drainage.</td>
</tr>
<tr>
<td>Higher average summer temperatures and increased incidence of heat waves</td>
<td>Adaptation of rail infrastructure to heat and temperature change heat warning systems</td>
<td>Adjustment of maximum temperature that rails</td>
</tr>
<tr>
<td>Increase in the frequency of extreme weather events</td>
<td>Retrofitting existing infrastructure of shipping concerning extreme events</td>
<td>Structures built from ocean shore (in coastal engineering) or from bank (in rivers)</td>
</tr>
<tr>
<td>Increase in the frequency of extreme weather events</td>
<td>Adequate design and maintenance of bridges and tunnels</td>
<td>increase in frequency of maintenance works</td>
</tr>
</tbody>
</table>
## Examples of climate change adaptation options: Water

<table>
<thead>
<tr>
<th>Climate change Impact</th>
<th>Adaptation option example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damages from flooding</td>
<td>River restoration (buffer zone), restoration of wetlands</td>
<td>Increasing the flow capacity of the river system</td>
</tr>
<tr>
<td>Higher average summer temperatures and increased incidence of heat waves</td>
<td>Installation and retrofitting of environmental infrastructures to prevent natural disasters</td>
<td>Adjustment of the maximum temperature that rails</td>
</tr>
<tr>
<td>Increase in the frequency of extreme weather events</td>
<td>Additional rain overflow basins to adapt sewage system against flooding, enhancing water storage capacity of reservoirs</td>
<td>Structures built from ocean shore (in coastal engineering) or from bank (in rivers)</td>
</tr>
<tr>
<td>Increase in the frequency of extreme weather events</td>
<td>Adequate design and maintenance of bridges and tunnels</td>
<td>Storm water retention reservoirs could be built</td>
</tr>
</tbody>
</table>
# Invest in ‘soft’ measures

<table>
<thead>
<tr>
<th>Theme</th>
<th>Soft option example</th>
</tr>
</thead>
</table>
| **Institutional capacity and implementing structures** | Awareness and training courses  
Development of new skills  
Inter-institutional structures  
New positions or job descriptions  
External experts |
| **Knowledge base**                          | Development of maps, analysis of damage costs and investment needs  
Technical studies and external evaluations  
Cooperation with research institutions  
Exchange of information and good practices with other regions |
| **Technical base**                          | The development, collection, analysis and presentation of information and data related to climate change  
Indicator and data sets  
Monitoring and reporting systems |
Focus on promoting synergies between mitigation and adaptation

**Guiding principles**
1) Prioritise mitigation activities that help to reduce pressure on the natural resources;
2) Include vulnerability to climate change as one of the risks to be analysed in mitigation activities;
3) Prioritise mitigation activities that enhance local adaptive capacity;

**Examples:**
- Energy efficient adaptation of homes against heat (e.g. passive cooling systems)
- Green roofs and urban greenery
Avoiding maladaptation / carbon harmful measures

**Guiding principle:**
1) Avoid investments that can have a counter productive effect on environmental / climate change objectives

**Examples:**
- Creating artificial snow to cope with reduced amount of snow for supporting winter tourism
- Construction of desalination plants to cope with water scarcity
- Building a wind power generator in nature sensitive area
- Promoting carbon intensive technologies (energy and transport) that can lock-in the country for decade into carbon-intensive paths of development
What instruments and mechanisms for horizontal integration of climate change?
Environmental Sustainability Manager (South West England Operational Programme)

The South West England OP and the introduction of Environmental Sustainability Manager with the following responsibilities:

- Working with beneficiaries in the pre-approval stage to raise their environmental awareness;
- Assessing applications to determine if projects have taken adequate account of environmental impacts;
- Championing new projects with an environmental focus such as the low carbon grant programme for businesses, the domestic energy efficiency scheme and the deep geothermal scheme. This has collectively resulted in a pipeline of activity that if achieved will result in £40-50million worth of investment;
- Liaising across programmes to ensure synergy and complementarity; and
- Ensuring that different advisory groups such as the Programme Monitoring Committee are up to date on progress and new developments.
Mainstreaming climate change through SEA in Cohesion Policy

- Strengthen consideration of climate change impacts
- Adapt the SEA to correspond better to OP scope
- On-going SEA as a parallel process to programming
- Review SEA on a regular basis (e.g. bi-annual)
- SEA monitoring indicators linked to general OP reporting systems
- SEA can contribute to project selection and prioritisation criteria
- SEA can also consider positive impacts
- SEA can contribute to the development of PA and OP objectives
Example: Ongoing SEA in Piemonte OP

• Ongoing monitoring/assessment with effective feedback mechanism

• Ongoing SEA not limited to single measures but evaluates the whole programme

• Extensive involvement of government officials

• Evaluator involved from beginning and throughout programming phase.
Example: SEA and Project Selection Criteria in the Central Baltic IVA Programme

How environmental considerations were integrated in the programme becomes relevant mainly during the stage when projects will be approved and monitored. The SEA provides following guidelines on project selection criteria:

• Applicant to assess possible environmentally significant aspects of the project based on regional challenges and programme content.

• Applicant to assess possibilities to strengthen positive impacts or mitigate negative impacts of project

• Where several similar projects are competing for resources, the project with most positive environmental impacts is preferred

• Programme monitoring system covers environmental impacts and project developers report continuously on positive as well as negative impacts. The indicators that will be requested for monitoring are already be described in the application form and linked to SEA.
Applicant assess environmental impacts of project proposal (environmentally neutral (0), environmentally beneficial (+ or ++) or environmentally harmful (-)): Categories assessed cover broadly those of the SEA:

- **Impacts on climate change** (improving energy efficiency, increasing use of renewable energy, mitigating risks of climate change, reducing amount of fossil CO2 emissions)
- **Impacts on emissions** (water, soil and air)
- **Impacts on production and consumption** (reducing amount of waste, waste re-use and recycling, energy and material efficiency, use of local renewable raw materials and services);
- **Impacts on the natural and built environment** (landscape, cultural environment, biodiversity, Natura 2000 sites)
- **Impacts on people** (living conditions and attractiveness of living areas, health)
- **Impacts on transport** (curbing increase of private car traffic, reducing need of shipping, improving logistic and percentage of public transport)
- **Impacts on research and training** (environmental technology, use of environmental management systems and environmental knowhow and awareness);
Example: Weighting of environmental selection criteria in Southern Finland OP

<table>
<thead>
<tr>
<th>Programme</th>
<th>Priority 1</th>
<th>Priority 2</th>
<th>Priority 3</th>
<th>Priorities 4 and 5</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Finland</td>
<td>1/6</td>
<td>1/6</td>
<td>1/6</td>
<td>1/6</td>
<td>17 %</td>
</tr>
<tr>
<td>Western Finland</td>
<td>1/10</td>
<td>2/12</td>
<td>3/8</td>
<td>0/10</td>
<td>7 %</td>
</tr>
<tr>
<td>Eastern Finland</td>
<td>0/9</td>
<td>0/7</td>
<td>1/5</td>
<td>-</td>
<td>2 %</td>
</tr>
<tr>
<td>Northern Finland</td>
<td>0/8</td>
<td>0/11</td>
<td>0/5</td>
<td>-</td>
<td>0 %</td>
</tr>
</tbody>
</table>

Does weighting of environmental selection criteria have an Impact?

Percentage and number of environmentally positive projects (in brackets) funded by the end of 2009 based on the annual implementation report.
### Examples of climate change mitigation indicators

<table>
<thead>
<tr>
<th>Case study</th>
<th>Indicator</th>
<th>Indicator’s purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basse-Normandie</td>
<td>CO₂ emissions</td>
<td>Information on CO₂ emissions of projects financed</td>
</tr>
<tr>
<td>South West UK OP</td>
<td>CO₂ emissions</td>
<td>Indicator measures reduced carbon intensity</td>
</tr>
<tr>
<td>OP of Southern Finland</td>
<td>CO₂ emissions</td>
<td>Indicator measures emissions from energy production and industry. Part of SEA monitoring.</td>
</tr>
<tr>
<td>OP of Southern Finland</td>
<td>Proportion of projects reducing greenhouse gases</td>
<td>Measures proportion of projects (based on funding), which reduce greenhouse gases.</td>
</tr>
<tr>
<td>Basque Country (Spain)</td>
<td>Energy consumption of households</td>
<td>Indicator used to measure energy use by households and businesses at regional level.</td>
</tr>
<tr>
<td>Northern Ireland OP</td>
<td>Capacity of renewable energy production</td>
<td>Indicator measures renewable energy production in MWh.</td>
</tr>
<tr>
<td>Covenant of Mayors approach in</td>
<td>Consumption of renewable energy</td>
<td>Indicator measures consumption of renewable energy over total energy consumption.</td>
</tr>
<tr>
<td>Barcelona</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Covenant of Mayors approach in</td>
<td>CO₂ emissions from Transport</td>
<td>Indicator measures CO₂ emissions generated by transport sector.</td>
</tr>
<tr>
<td>Barcelona</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piemonte OP (Italy)</td>
<td>Resources invested in production of energy from renewable sources in SME</td>
<td>Indicator measures resources invested (in Euros) to incentivise self-production of energy from renewable sources in SMEs</td>
</tr>
</tbody>
</table>


Indicators for risk prevention and management in ERDF Proposal 2014-2020

| Proposed common indicators for measuring progress on risk prevention and management in the proposed ERDF regulation for 2014-2020 |
|---|---|---|
| Unit | Name |
| Persons | Population benefiting from flood protection measures |
| Persons | Population benefiting from forest fire protection and other protection measures |
### Examples of indicators for specific adaptation options

<table>
<thead>
<tr>
<th>Adaptation option</th>
<th>Output indicator</th>
<th>Result indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat-resistant asphalt and adjustment of maintenance</td>
<td>Km of new road with heat-resistant asphalt</td>
<td>Volume of passenger and freight traffic to benefit from better and resilient roads</td>
</tr>
<tr>
<td>Retrofitting existing road infrastructure concerning increased precipitation (e.g. increasing drainage system)</td>
<td>Km of road retrofitted for increased precipitation</td>
<td>Number of years for which road infrastructure will last, based on current projected climate impacts.</td>
</tr>
<tr>
<td>Adaptation of rail infrastructure to heat and temperature change</td>
<td>Km of rail infrastructure adapted to increased temperatures</td>
<td>Volume of passenger and freight traffic to benefit from better and resilient rails</td>
</tr>
</tbody>
</table>

*Example: Examples of potential climate change adaptation indicators*
• All French OPs comply with the principle of carbon neutrality
• Assess the overall neutrality of a set of projects in various sectors in terms of GHG emissions
• Actions in favour of energy control, renewable energies and waste to compensate emissions of industrial activities and road freight
• Used only for regional OPs but could be adapted to sectoral OPs
• Project allocations are to be quantified ex ante and can be amended during the implementation stage
• Only suitable for climate change mitigation projects
Climate change tracking

- Commission proposed ‘climate change tracking’ as one mechanism for climate change mainstreaming
- Its aim is to improve the transparency and accountability of climate change expenditure by designing a system for classifying and reporting climate change expenditure
- This is related to the implementation of article 8 (horizontal principles) and article 44 (annual implementation reports)
Tracking climate expenditure

<table>
<thead>
<tr>
<th>Climate change</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitigation</td>
<td>An activity should be classified as climate change if it contributes to the objective of stabilisation of greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system by promoting efforts to reduce or limit GHG emissions or to enhance GHG sequestration.</td>
</tr>
<tr>
<td>Adaptation</td>
<td>Climate adaptation activity is one that intends to reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks, by maintaining or increasing adaptive capacity and resilience.</td>
</tr>
</tbody>
</table>

- **Climate related only**, which will be counted fully (i.e., 100 per cent as climate expenditure);
- **Significantly climate related**, which will be counted partially (i.e., 40 per cent as climate expenditure); and
- **Not climate related**, which will not be counted (0 per cent climate expenditure).

Source: OECD Rio Markers
How to apply Rio Markers

Q1. What objectives are stated in the project/programme document?

Q2. Do any of the stated objectives match “Criteria for eligibility” of climate markers?
   - Yes
   - No

Q3. Would the activity have been undertaken without this objective?
   - No
   - Yes

- 2 Principal
  - 100% is counted

- 1 Significant
  - 40% is counted

- 0 Not targeted
  - Not counted

Source: OECD
Exemplification

Activity 1: Climate related only
If an activity aims to limit anthropogenic greenhouse gas emissions through switching from a coal-fired power plant to cleaner energy sources including a mix of geothermal, hydro-electric and solar power, it means that climate change mitigation is a primary motivation for undertaking this activity, and therefore should be counted as 100%.

Activity 2: Significantly climate related
If an activity aims to provide access to safe and reliable energy services as a means of achieving social and economic development and only one component of the activity is supposed to support end users in obtaining access to reliable and cleaner energy services, then energy provision is the primary objective whereas climate change mitigation is a secondary objective. It should be counted as 40%.

Session 3
Group exercise

• Split into two groups
  1) Regional OP
  2) Sectoral OP – Infrastructure and environment

• 45 minutes

• Objective: prepare an implementation strategy for climate change mainstreaming in your OP
Discuss the following questions:

1) What information needs / guidance for climate change mainstreaming for preparing OP?

2) What objectives and priorities for intervention?

3) What tools / mechanisms for horizontal integration - procedures, institutional approaches, etc.?

4) What potential barriers and challenges?
Additional information sources

Strategies and instruments for climate proofing EU budget (IEEP)
http://www.ieep.eu/assets/782/Climate_proofing_EU_budget.pdf

Cohesion Policy and Sustainable Development (IEEP)

Instruments for environmental and climate change mainstreaming in Cohesion Policy (IEEP)
http://www.ieep.eu/assets/916/Supporting_Paper_5_Task_7_October_2011_.pdf

Case studies with good practices (IEEP)
http://www.ieep.eu/work-areas/biodiversity/2012/05/cohesion-policy-and-sustainable-development-case-studies-supporting-paper-4

Green Infrastructure options (IEEP)
http://www.ieep.eu/assets/898/Green_Infrastructure_Implementation_and_Efficiency.pdf

Climate change adaptation in urban areas (EEA)
Thank you!
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For more information about IEEP’s work on greening the post-2013 EU budget and Cohesion Policy, please visit:
http://www.ieep.eu/work-areas/governance/k/cohesion-policy/